Express Mail Label No. EV 333134887 US
Title: Automatically Creating Javascript Objects To Invoke Methods On Server-Side Java Beans
Inventor(s): Robert DeSantis
Atty. Docket No.: 22233-08078
Sheet 1 of 10

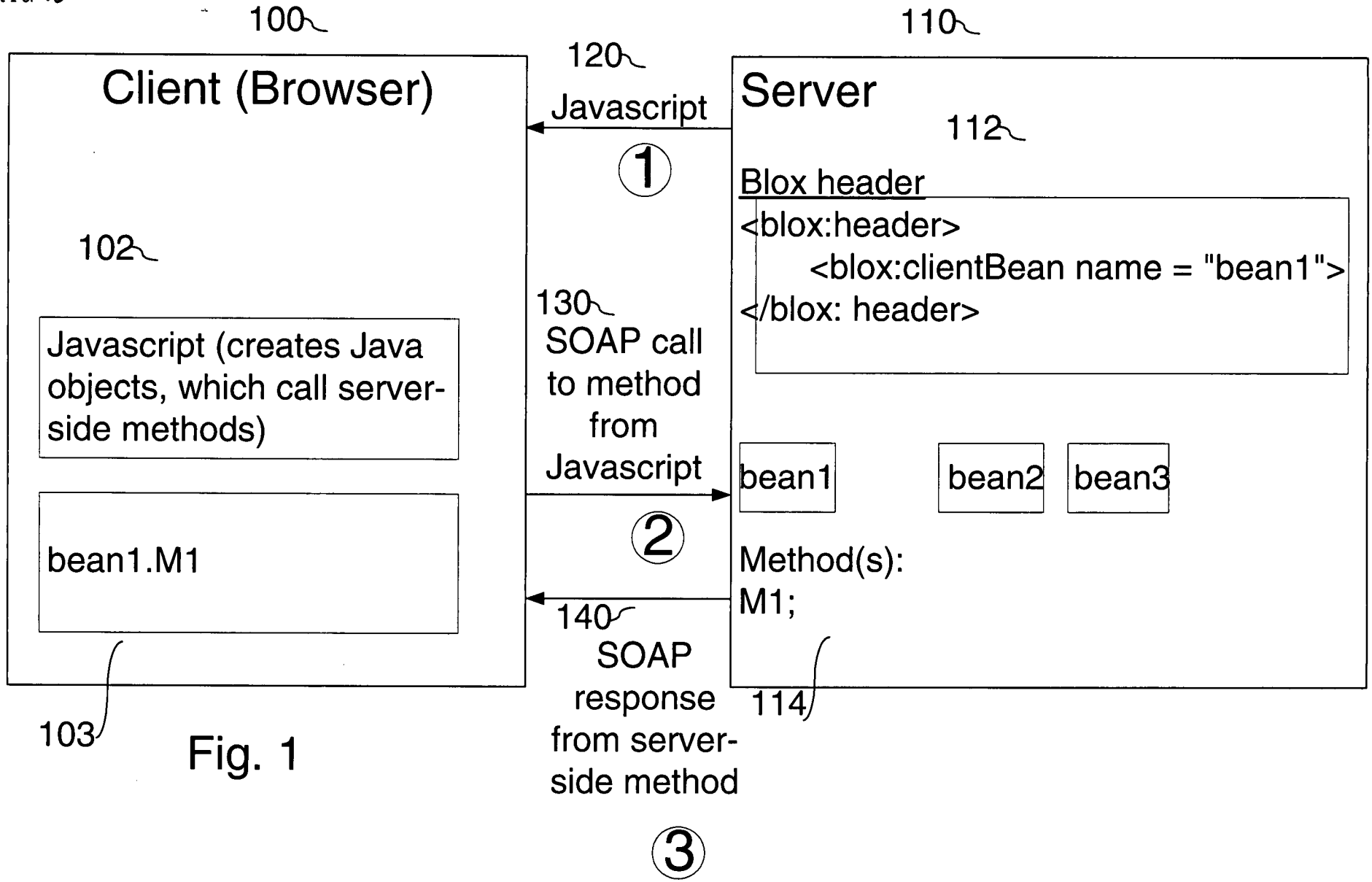

Fig. 1

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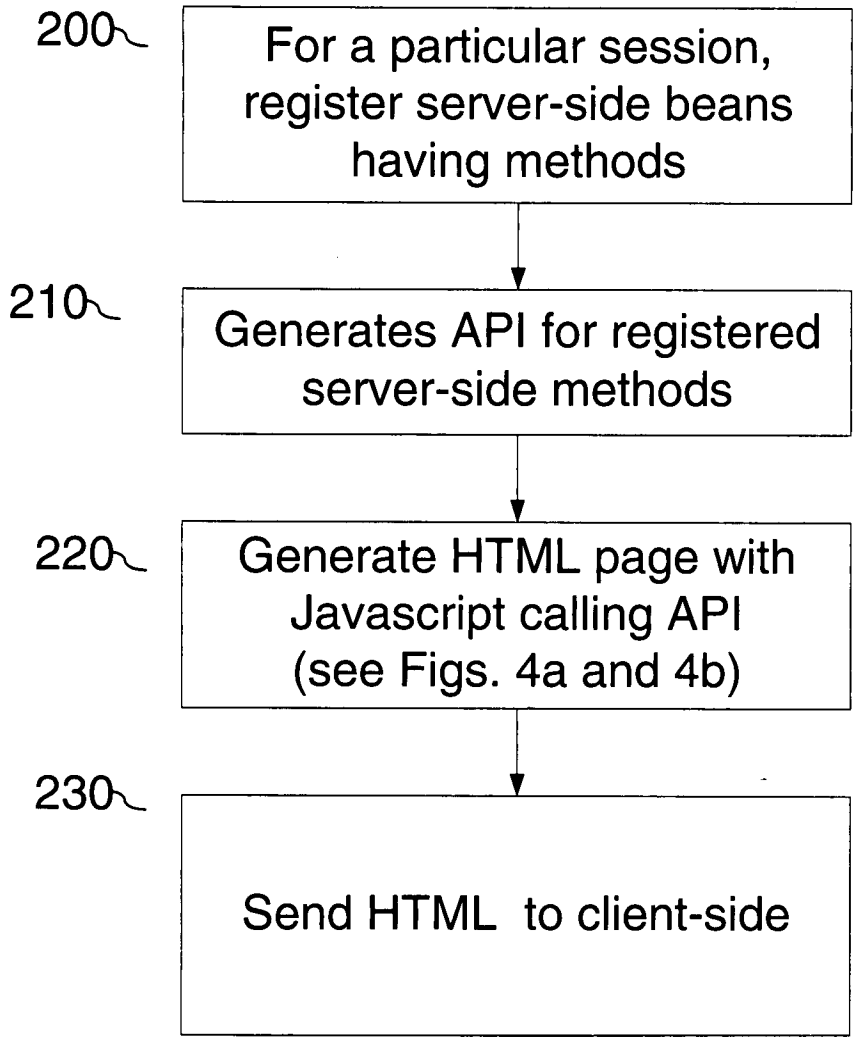

Fig. 2
Server-side

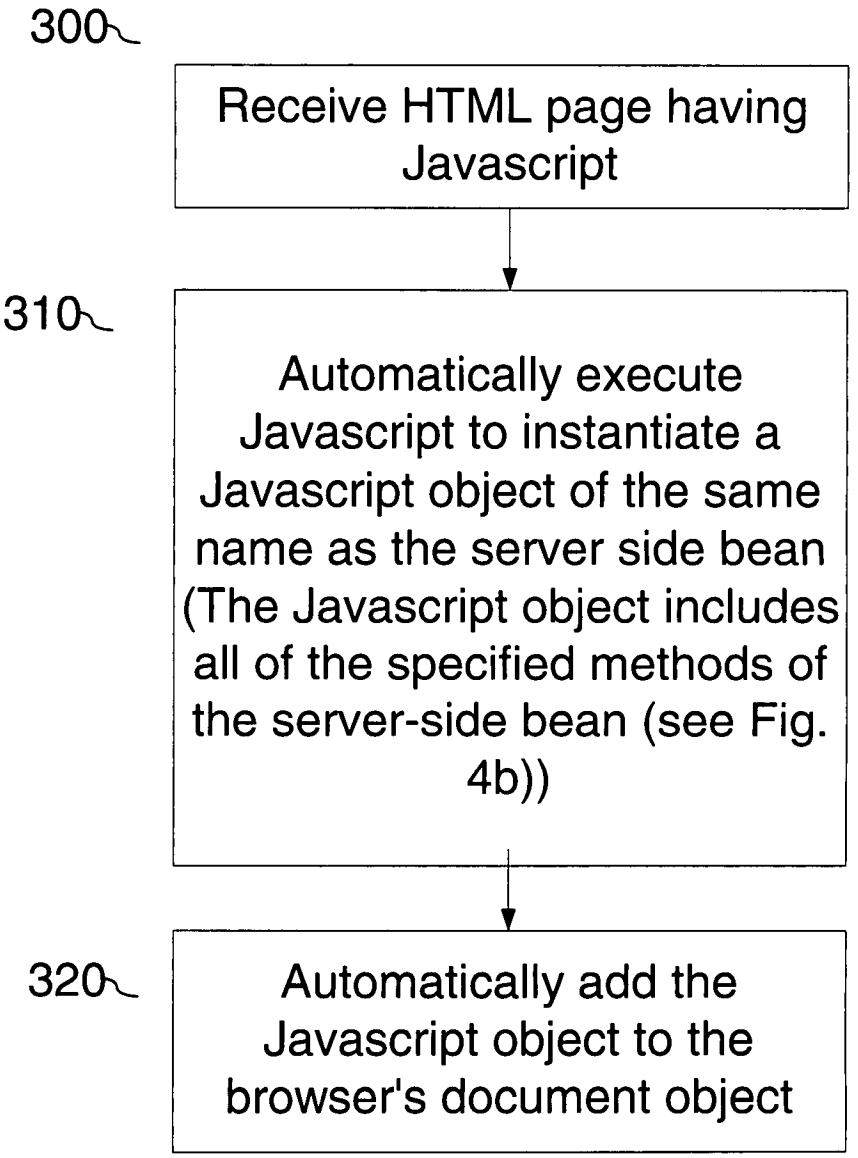

Fig. 3
Client-side

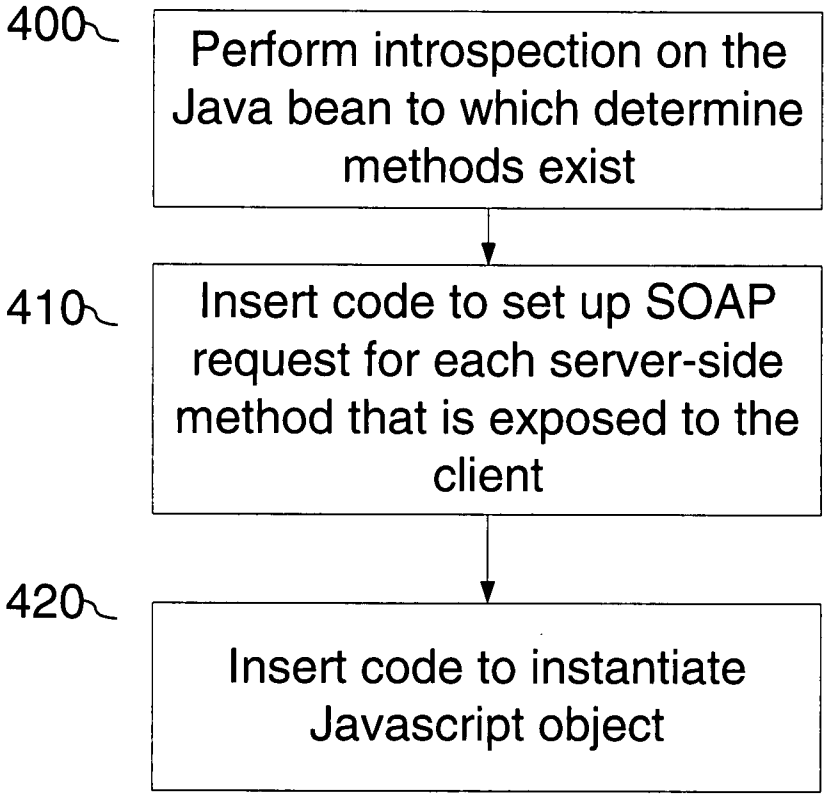

Fig. 4a
Automatic Generation of Javascript on Server-Side

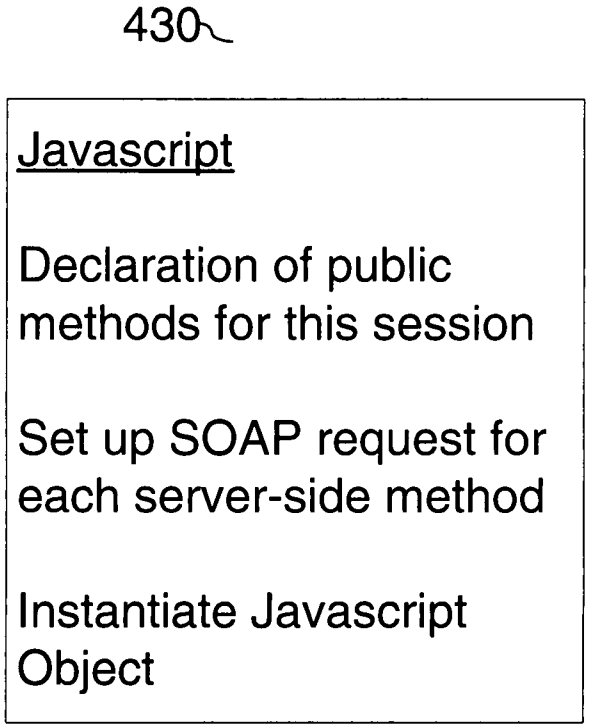

Fig. 4b
Functional Description of Automatically Generated Javascript

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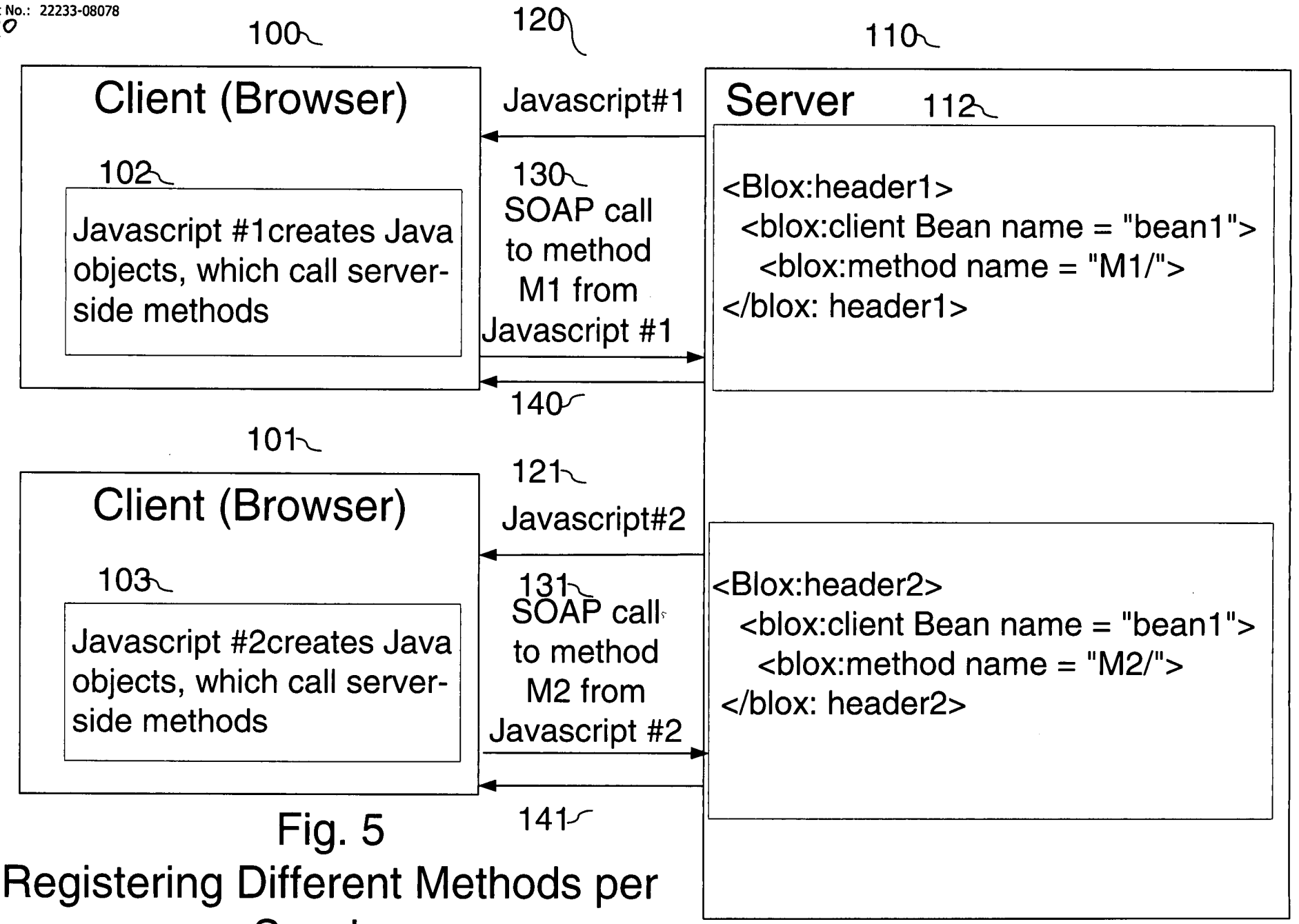

Fig. 5
Registering Different Methods per Session

```
<%@ page import="com.alphablox.blox.PresentBlox,
        com.alphablox.blox.ServerBloxException"%>
<%@ taglib uri='bloxtld' prefix='blox'%>
<%@ taglib uri='bloxuitld' prefix='bloxui'%>
<blox:data id="calldata" dataSourceName="qcc-msas" useAliases="true" visible="false"
   query="SELECT {([Time].[Calendar].[All Time Periods].[2000].[Qtr 3 00], [Scenario].[All Scenario].[Actual]), ([Time].[Calendar].[All Time
Periods].[2000].[Qtr 4 00], [Scenario].[All Scenario].[Actual]), ([Time].[Calendar].[All Time Periods].[2001], [Scenario].[All Scenario].[Budget]),
([Time].[Calendar].[All Time Periods].[2001].[Qtr 1 01], [Scenario].[All Scenario].[Budget]), ([Time].[Calendar].[All Time Periods].[2001].[Qtr 2 01],
[Scenario].[All Scenario].[Budget])}  ON COLUMNS, {[Locations].[All Locations], [Locations].[All Locations].Children} ON ROWS FROM QCC" />

<blox:present id="callpresent" width="600" height="500" menubarVisible="true" chartAvailable="false" visible="false">
  <blox:toolbar visible="true" />
  <blox:grid bandingEnabled="true" />
  <blox:data bloxRef="calldata" />
</blox:present>
<%-- Create and register a J2EE session bean --%>
<jsp:useBean class="MyBean" scope="session" id="myBean">
   <%
      myBean.setBlox( callpresent );
   %>
</jsp:useBean>
<html>
<head>
<%-- Register the bean as a client bean --%>
<blox:header>
   <blox:clientBean name="myBean" />
</blox:header>
<script>
// Use ClientBean to invoke method on the bean
function showDataLayout( show )
{
   // Call the server-side bean's method
   var result = myBean.showDataLayout( show );

   // Display the return value from the server-side bean method
   alert( "Result type: " + typeof result + "\r\n\r\n" + result );
}
</script>
</head>
<body>
<input type="button" value="Hide Data Layout" onclick="showDataLayout( false );" >
<input type="button" value="Show Data Layout" onclick="showDataLayout( true );" >
</body>
</html>
```

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Fig. 6(a)
Example JSP Page

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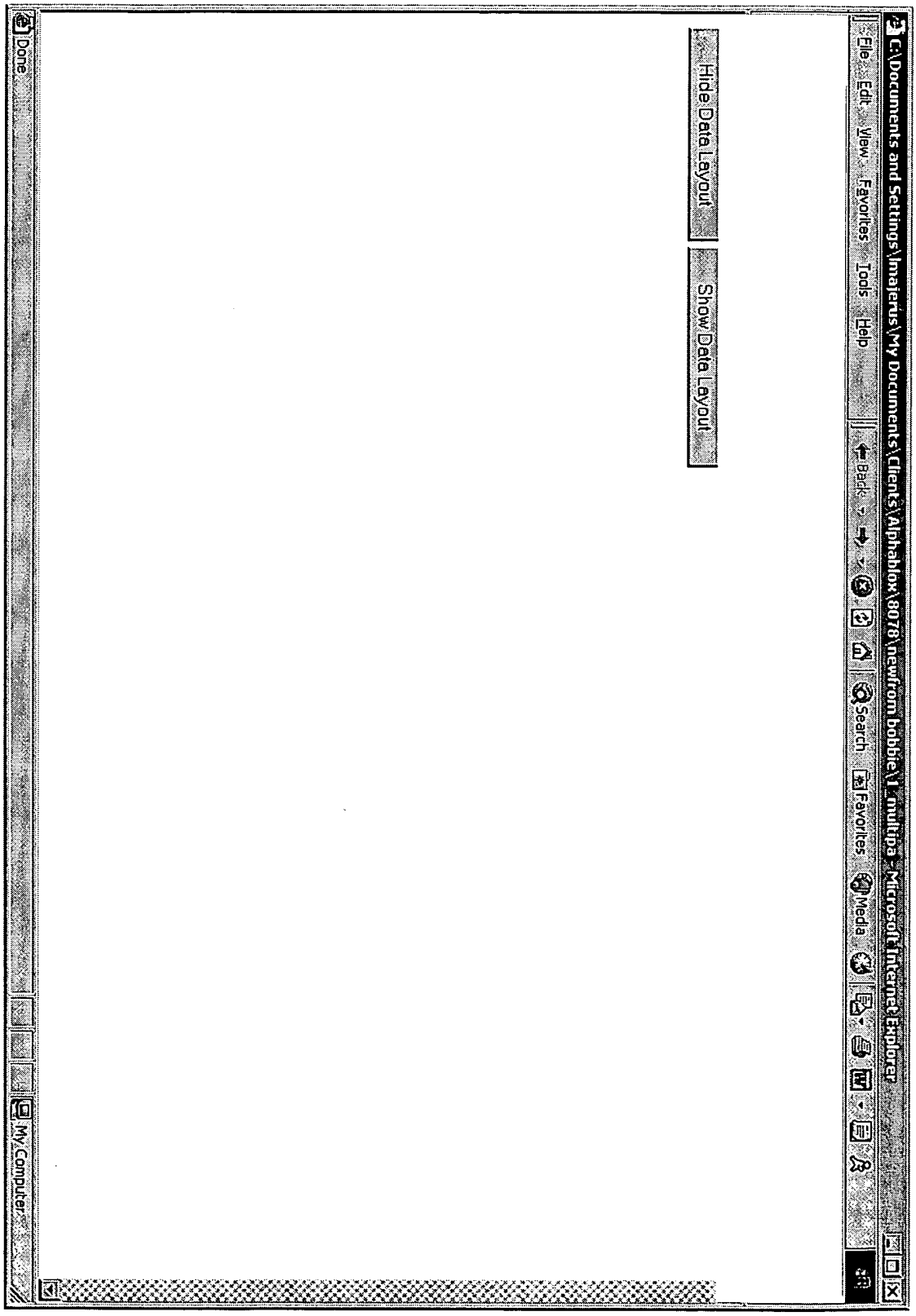

Fig. 6b

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MyBean.java

```
import com.alphablox.blox.PresentBlox;
import com.alphablox.blox.ServerBloxException;

public class MyBean {
      private PresentBlox blox;

        public MyBean( )
        {
        }

        public void setBlox( final PresentBlox blox ) {
            this.blox = blox;
        }

        public String[] showDataLayout( boolean show ) {
            try {
                blox.setDataLayoutAvailable( show );
            } catch (ServerBloxException e) {
                e.printStackTrace();
            }

            return new String[] { "one", "two", "three" };
        }
}
```

Fig 7
Example of bean

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bean_myBean.js

```
/* Automatically Generated JavaScript - do not modify */

function ImyBean( )
{

        // Public methods
        this.showDataLayout = _showDataLayout;
        this.setBlox = _setBlox;

        function _showDataLayout( arg1 ) {
                var soap = new SimpleSoapRequest( "callBean" );
                soap.addParameter( "bean", "myBean" );
                soap.addParameter( "method", "showDataLayout" );
                soap.addParameter( "arg1", arg1, "boolean" );
                return bloxAPI.rpc( soap );
        }
        function _setBlox( arg1 ) {
                var soap = new SimpleSoapRequest( "callBean" );
                soap.addParameter( "bean", "myBean" );
                soap.addParameter( "method", "setBlox" );
                soap.addParameter( "arg1", arg1 );
                return bloxAPI.rpc( soap );
        }
}

var myBean = new ImyBean( );
document.myBean = myBean;
```

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Fig 8

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```
<html>
<head>
<!-- START ALPHABLOX HEADER -->

<META HTTP-EQUIV="Pragma" CONTENT="no-cache">
<LINK REL="stylesheet" HREF="/AlphabloxServer/theme/coleman/coleman.css" TYPE="text/css">
<LINK REL="stylesheet" HREF="/AlphabloxServer/theme/coleman/coleman_dhtml.css" TYPE="text/css">
<LINK REL="stylesheet" HREF="/AlphabloxServer/theme/dhtml_view.css" TYPE="text/css">

<SCRIPT>
var _appContext = "dca";
var _appName = "dca";
var _renderType = "dhtml";
var _pollInterval = 120000;
var _homeURL = "/dca/abx/peer/myBean.jsp?AAS_QZ=1072744706967";
var _themeName = "coleman";
var _imageURL = "/AlphabloxServer/theme/coleman/i/";
var _prefixURL = "";
var _ibarArray = [ ];
</SCRIPT>

<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/theme/aas.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/compatibility.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/stringUtilities.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/browserCheck.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/core.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/BloxHttp.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/Soap.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/BloxAPI.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/Events.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/Blox.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/Dialog.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/clientToolbarAPI.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/color.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/grid.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/cell.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/jslib/dhtml/utility.js"></SCRIPT>
<SCRIPT LANGUAGE="javascript" src="/AlphabloxServer/temp/script/dca/bean_myBean.js"></SCRIPT>

<!-- END ALPHABLOX HEADER -->
```

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Fig. 9a
HTML Sent to Server

900'

```
<script>

// Use ClientBean to invoke method on the bean
function showDataLayout( show )
{
   // Call the server-side bean's method
   var result = myBean.showDataLayout( show );

   // Display the return value from the server-side bean method
   alert( "Result type: " + typeof result + "\r\n\r\n" + result );
}

</script>

</head>

<body>
<input type="button" value="Hide Data Layout" onclick="showDataLayout( false );" >
<input type="button" value="Show Data Layout" onclick="showDataLayout( true );" >
</body>

</html>
```

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Fig. 9b
HTML Sent to Server
(cont.)